

Curriculum Vitae - Dominik Kowald

Personal Data

Name: Dipl.Ing. **Dominik Kowald**, BSc.
Address: Inffeldgasse 13/5, 8010 Graz, Austria
Phone: +43 (316) 873-30846
Mail: dkowald [AT] know [MINUS] center [DOT] at
Date of Birth: January 11, 1987 (Graz, Austria)
Nationality: Austrian



Professional

Since 09/2012

Knowledge Technologies Institute and Know-Center, Graz University of Technology

Full time, University assistant, working in the Social Computing research area on Ph.D. thesis dealing with modelling cognitive processes in social tagging to develop novel tag recommender algorithms under the supervision of Prof. Stefanie Lindstaedt and the co-supervision of Ass.Prof. Elisabeth Lex

12/2010 - 03/2012

IICM Institute, Graz University of Technology

Part time, project assistant, working on master thesis in the course of the EU project ALICE dealing with e-assessment methods in Wiki systems under the supervision of Prof. Christian Guetl and the co-supervision of Dr. Mohammed Al-Smadi

12/2009 – 11/2010

IVM Technical Consultants Graz

Part time, software developer, working on software projects in the automotive sector

07/2009 – 08/2009

GRAWE Insurance AG

Intern, working on various software projects

10/2008 – 02/2009

IGI Institute, Graz University of Technology

Part time, teaching assistant for the bachelor course “data structures and algorithms” led by Prof. Robert Legenstein

08/2005, 08/2007, 08/2008

GAW Technologies GmbH

Intern, working on various software projects and maintaining parts of the IT infrastructure

08/2004

Energie Graz GmbH & Co KG

Summer intern

08/2003

Gas & Waerme Styria GmbH (Austria)

Summer intern

Education

Since 10/2012

Doctoral studies (Ph.D.), Graz University of Technology

Doctoral school for informatics

10/2009 – 06/2012

Master studies, Graz University of Technology

Software development and economy, Dipl.Ing./MSc. (graduated with highest distinction)

10/2006 – 09/2009

Bachelor studies, Graz University of Technology

Software development and economy, BSc.

09/2001 – 06/2006

Federal Higher Technical Institute for Educating and Experimenting, Bulme Graz-Goesting

Business informatics (graduated with highest distinction)

09/1997 – 07/2001

Secondary school, Bischoeflisches Gymnasium Graz

09/1993 – 07/1997

First school, Schwester Klara-Fitz Volksschule Graz

Research Interests

Recommender Systems: Algorithmic design, evaluation and tag predictions

Social Computing: Social Network Analysis and Data Science

Awards and Funding

Travel Grant for the 27th ACM Conference on Hypertext and Social Media (HT'2016) in Halifax, Canada

Best Demo Honourable Mention at the 15th International Conference on Knowledge Technologies and Data-Driven Business (i-Know'2015)

Best Poster Award at the 25th ACM Conference on Hypertext and Social Media (HT'2014)

Research Projects Involvement

Since 12/2015

AFEL, Analytics for Everyday Learning

European Commission H2020 program, researcher and co-task leader

11/2012 – 12/2016

Learning Layers, Scaling up Technologies for Informal Learning in SME Clusters

European Commission FP7 program, researcher and software developer and since 09/2016 co-work package leader

10/2012 – 04/2014

Organic Lingua, Demonstrating the potential of a multilingual Web portal for Sustainable Agricultural & Environmental Education

European Commission ICT PSP program, software developer

10/2010 – 03/2012

ALICE, Adaptive Learning via Intuitive/Interactive, Collaborative and Emotional Systems

European Commission FP7 program, software developer

Research Activities

Organizer

Workshop on Recommender Systems and Big Data Analytics (RSBDA'16) co-located with i-KNOW 2016, Graz, Austria (<http://socialcomputing.know-center.tugraz.at/rs-bda/>)

Reviewer

Computers & Education Journal (<http://ees.elsevier.com/cae/>)

MSM'2015, 6th International Workshop on Modeling Social Media - Behavioral Analytics in Social Media, Big Data and the Web co-located with WWW'2015 conference

UMAP'2014, 22nd Conference on User Modelling, Adaption and Personalization

EC-TEL'2014, 9th European Conference on Technology Enhanced Learning

Session Chair

i-Know'2015, Social Computing track of the 15th International Conference on Knowledge Technologies and Data-Driven Business, Graz, Austria

i-Know'2013, Science 2.0 track of the 13th International Conference on Knowledge Technologies and Data-Driven Business, Graz, Austria

Talks and Presentations

Hypertext'2016, Social Media Analytics session of the 27th ACM Conference on Hypertext and Social Media (HT'2016) in Halifax, Canada

CSSWS'2015, Pecha Kucha and poster session of the 2nd Computational Social Sciences Winter Symposium, Cologne, Germany

RecSys'2015, Short Paper slam and poster session of the 9th ACM Conference on Recommender Systems, Vienna, Austria

WWW'2015, PhD Symposium of the 24th International World Wide Web Conference, Florence, Italy

i-Know'2015, Demo session of 15th Int. Conference on Knowledge Technologies, Graz, Austria

WWW'2014, WebScience track of the 23rd International World Wide Web Conference, Seoul, Korea

SRS'2014, Workshop on Social Recommender Systems @ WWW'2014 conference, Seoul, Korea

i-Semantics'2013, Poster session of the 9th Int. Conference on Semantic Systems, Graz, Austria

Publications

Journal Articles

Kopeinik, S., **Kowald, D.**, Hasani-Mavriqi, I., & Lex, E. (2016). Improving Collaborative Filtering Using a Cognitive Model of Human Category Learning. *The Journal of Web Science (JWS)*. Vol. 2, No 1.

Trattner, C., **Kowald, D.**, Seitlinger, P., Kopeinik, S. & Ley, T. (2016). Modeling Activation Processes in Human Memory to Predict the Reuse of Tags. *The Journal of Web Science (JWS)*. Vol. 2, No. 1, pp 1 – 18.

Santos, P., Dennerlein, S., Theiler, D., Cook, J., Treasure-Jones, T., Holley, D., Kerr, M., Attwell, G., **Kowald, D.**, & Lex, E. (2016) Going beyond your personal learning network, using recommendations and trust through a multimedia question-answering service for decision-support: A case study in the healthcare. *Journal of Universal Computer Science (JUICS)*. ISSN 0948-695X.

Book Chapters

Kowald, D., Kopeinik, S., Seitlinger, P., Ley, T., Albert, D., & Trattner, C. (2015). Refining Frequency-Based Tag Reuse Predictions by Means of Time and Semantic Context. In *Mining, Modeling, and Recommending 'Things' in Social Media* (pp. 55-74). Springer International Publishing.

Kowald, D., Seitlinger, P., Kopeinik, S., Ley, T., & Trattner, C. (2015). Forgetting the Words but Remembering the Meaning: Modeling Forgetting in a Verbal and Semantic Tag Recommender. In *Mining, Modeling, and Recommending 'Things' in Social Media* (pp. 75-95). Springer International Publishing.

Lacic, E., **Kowald, D.**, Eberhard, L., Trattner, C., Parra, D., & Marinho, L. B. (2015). Utilizing Online Social Network and Location-Based Data to Recommend Products and Categories in Online Marketplaces. In *Mining, Modeling, and Recommending 'Things' in Social Media* (pp. 96-115). Springer International Publishing.

Conference Papers

Kowald, D., Pujari, S., & Lex, E. (2017). Temporal Effects on Hashtag Reuse in Twitter: A Cognitive-Inspired Hashtag Recommendation Approach. In Proceedings of the 26th International World Wide Web Conference (WWW'2017). ACM.

Kopeinik, S., **Kowald, D.**, & Lex, E. (2016). Which Algorithms Suit Which Learning Environments? A Comparative Study of Recommender Systems in TEL. In Proceedings of the 11th European Conference on Technology Enhanced Learning (EC-TEL'2016). Springer.

Kowald, D., & Lex, E. (2016). The Influence of Frequency, Recency and Semantic Context on the Reuse of Tags in Social Tagging Systems. In *Proceedings of the 27th International Conference on Hypertext and Social Media (HT'2016)*. ACM.

Lacic, E., **Kowald, D.**, & Lex, E. (2016). High Enough? Explaining and Predicting Traveler Satisfaction in Airline Reviews. In *Proceedings of the 27th International Conference on Hypertext and Social Media (HT'2016)*. ACM.

Kowald, D., & Lex, E. (2015). Evaluating Tag Recommender Algorithms in Real-World Folksonomies: A Comparative Study. In *Proceedings of the 9th ACM Conference on Recommender Systems (RecSys'2015)*. ACM.

Seitlinger, P., **Kowald, D.**, Kopeinik, S., Hasani-Mavriqi, I., Ley, T., & Lex, E. (2015). Attention Please! A Hybrid Resource Recommender Mimicking Attention-Interpretation Dynamics. In *Proceedings of the companion publication of the 24th international conference on World wide web companion (WWW'2015)*. International World Wide Web Conferences Steering Committee.

Kowald, D. (2015). Modeling Cognitive Processes in Social Tagging to Improve Tag Recommendations. In *Proceedings of the 24th International Conference on World Wide Web Companion (WWW'2015)*, pp. 505-509. International World Wide Web Conferences Steering Committee. (PhD Symposium)

Dennerlein, S., **Kowald, D.**, Lex, E., Theiler, D., Lacic, E., & Ley, T. (2015). The Social Semantic Server: A Flexible Framework to Support Informal Learning at the Workplace. In *Proceedings of the 15th International Conference on Knowledge Technologies and Data-driven Business(i-Know'2015)*. ACM.

Kowald, D., Seitlinger, P., Trattner, C., & Ley, T. (2014). Long Time no See: The Probability of Reusing Tags as a Function of Frequency and Recency. In *Proceedings of the companion publication of the 23rd international conference on World wide web companion (WWW'2014)*, pp. 463-468. International World Wide Web Conferences Steering Committee.

Seitlinger, P., **Kowald, D.**, Trattner, C., & Ley, T. (2013). Recommending tags with a model of human categorization. In *Proceedings of the 22nd ACM international conference on information & knowledge management (CIKM'2013)* ,pp. 2381-2386. ACM.

Poster and Demo Papers

Lacic, E., **Kowald, D.**, Traub, M., Luzhnica, G., Simon, J., & Lex, E. (2015). Tackling Cold-Start Users in Recommender Systems with Indoor Positioning Systems. In *Proceedings of the 9th ACM Conference on Recommender Systems (RecSys'2015)*. CEUR-WS

Traub, M., **Kowald, D.**, Lacic, E., Schoen, P., Supp, G., & Lex, E. (2015). Smart booking without looking: providing hotel recommendations in the TripRebel portal. In *Proceedings of the 15th International Conference on Knowledge Technologies and Data-driven Business (i-Know'2015)*. ACM. **(best demo honourable mention)**

Kowald, D., Lacic, E., & Trattner, C. (2014). TagRec: towards a standardized tag recommender benchmarking framework. In *Proceedings of the 25th ACM conference on Hypertext and social media (HT'2014)* ,pp. 305-307). ACM. **(best poster award)**

Lacic, E., **Kowald, D.**, & Trattner, C. (2014). SocRecM: a scalable social recommender engine for online marketplaces. In *Proceedings of the 25th ACM conference on Hypertext and social media (HT'2014)*, pp. 308-310. ACM.

Kowald, D., Dennerlein, S., Dieter, T., Walk, S. & Trattner, C. (2013). The Social Semantic Server - A Framework to Provide Services on Social Semantic Network Data. In *Proceedings of the 9th International Conference on Semantic Systems (i-Semantics'2013)*. CEUR-WS.

Workshop Papers

Traub, M., Lacic, E., Kowald, D., Kahr, M., & Lex, E. (2016). Need Help? Recommending Social Institutions. Workshop on Recommender Systems and Big Data Analytics (RSBDA'2016) co-location with i-KNOW'2016.

Lacic, E., Traub, M., **Kowald, D.**, & Lex, E. (2015). ScaR: Towards a Real-Time Recommender Framework Following the Microservices Architecture. *Workshop on Large Scale Recommender Systems (LSRS'2015) co-located with the 9th ACM Conference on Recommender Systems (RecSys'2015)*.

Lacic, E., **Kowald, D.**, Seitlinger, P., Trattner, C. & Parra, D. (2014). Recommending Items in Social Tagging Systems Using Tag and Time Information, In *Proceedings of the 1st International Workshop on Social Personalisation (SP'2014) co-located with the 25th ACM Conference on Hypertext and Social Media (HT'2014)*. CEUR-WS.

Lacic, E., **Kowald, D.**, Parra, D., Kahr, M., & Trattner, C. (2014). Towards a scalable social recommender engine for online marketplaces: The case of apache solr. In *Proceedings of the companion publication of the 23rd international conference on World wide web companion (WWW'2014)*, pp. 817-822. (Workshop on Social Recommender Systems: SRS'2014).

Newsletters and Extended Abstracts

Trattner, C., **Kowald, D.**, & Lacic, E. (2015). TagRec: Towards a Toolkit for Reproducible Evaluation and Development of Tag-Based Recommender Algorithms. *SIGWEB Newsletter*. Winter 2015.

Kowald, D., Seitlinger, P., Ley, T., & Lex, E. (2015). Modeling Activation Processes in Human Memory to Improve Tag Recommendations. 2nd GESIS Computational Social Sciences Winter Symposium (CSSWS'2015).

Master thesis

Kowald, D. Combining Computer-Supported, Collaborative Learning with E-Assessment: Enhancing a Wiki System with Flexible Assessment Methods.

Bachelor thesis

Kowald, D., & Maderer J. Peer Assessment in Computer Science and Modern Technologies to Build a Flexible E-Learning System around It.